

ACCUMULATED REPAIR COSTS AS A PERCENT OF PURCHASE PRICE **

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Machine	1/4 LIFE Accumulated Hours - Costs		1/2 LIFE Accumulated Hours - Costs		3/4 LIFE Accumulated Hours - Costs		FULL LIFE Accumulated Hours - Costs	
2- & 4-wheel drive tractors	2,500	9.8%	5,000	29.7%	7,500	56.8%	10,000	90.0%
Crawlers	4,000	8.7%	8,000	26.4%	12,000	50.5%	16,000	80.0%
Combines	500	2.7%	1,000	9.5%	1,500	19.6%	2,000	33.0%
Cotton Pickers Corn Pickers Cotton Strippers	500	8.2%	1,000	24.7%	1,500	47.3%	2,000	75.0%
Planters, Drills	250	8.2%	500	24.7%	750	47.3%	,000	75.0%
Mowers	250	29.7%	500	73.1%	750	123.7%	1,000	180.0%
Plows Swathers Balers Balewagons Forage Harvesters	500	13.2%	1,000	32.5%	1,500	55.0%	2,000	80.0%
Disks Chisel Plows Field Cultivators	500	5.3%	,000	18.7%	,500	38.7%	2,000	65.0%

** Repair cost estimates do not include the effect of inflation over the period of ownership.

Sources: Adapted from data from Agricultural Engineering Department, University of Illinois, and the Agricultural Engineering Handbook.

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Example 1:

\$45,000 was paid for a 2-wheel drive tractor ten years ago. The tractor hour meter shows 7,342 hours. According to the above table, 7,342 hours is about three-fourths life. The table shows repair costs to average 56.8% at this point:

$$0.568 \times \$45,000 = \$25,560$$

In this example, \$25,560 has been spent over the last ten years for repairs. Cost per hour would be:

$$\$25,560 / 7,342 = \$3.48 \text{ per hour}$$

Example 2:

The same tractor in example 1 is used to pull a swather and covers about 5 acres per hour. The swather has been used for 600 hours and cost \$5,000 when bought 3 years ago. What would be the estimated repair cost per acre of both pieces of equipment?

$$\text{Tractor repair cost} = \$3.48 \text{ per hour}$$

$$\text{Swather repair cost} = 0.132 \times \$5,000 = \$660 / 600 = \$1.10 \text{ per hour}$$

$$\$3.48 + \$1.10 = \$4.58 / 5 = \$0.92 \text{ per acre}$$